transistor, both first and second pull-down transistors having a second source/drain connected to a power supply voltage node; and

wherein the first and second transfer gate transistors each have a first width and include a gate oxide layer having a first thickness, the first and second pull-down transistors each have a second width and include a gate oxide layer having a second thickness, and a product of the [first] second width and the first thickness is greater than or equal to a product of the [second] first width and the second thickness.

4. The SRAM memory cell of claim 1, wherein the first and second thicknesses are determined as follows:

$$[\text{RATIO} \le \frac{Tox_{tg}}{Tox_{pd}} \frac{W_{pd}/L_{pd}}{W_{tg}/L_{tg}} \frac{Vcc - Vt_{tg}}{Vcc - Vt_{pd}}]$$

$$\text{RATIO} \le \frac{Tox_{tg}}{Tox_{pd}} x \frac{W_{pd}/L_{pd}}{W_{tg}/L_{tg}} x \frac{Vcc - Vt_{pd}}{Vcc - Vt_{tg}}$$

where RATIO is the desired ratio of the transfer gate transistors and the pull down transistors, Tox_{tg} is the gate oxide thickness of the transfer gate transistor, Tox_{pd} is the gate oxide thickness of the pull-down transistor, W_{pd} is width of the pull-down transistor, L_{pd} is the length of the pull-down transistor, W_{tg} is the width of the transfer gate transistor, L_{tg} is the length of the transfer gate transistor, Vt_{tg} is the threshold voltage of the transfer gate transistor, and Vt_{pd} is the threshold voltage of the pull-down transistor.

6. A semiconductor circuit comprising:

a first transistor having a first width an a first gate including a gate oxide layer having a first thickness; and

a second transistor having a second width and a second gate including a gate oxide layer having a second thickness, wherein a product of the [second] first width and the second thickness is greater than a product of the [first] second width and the first thickness.

9. The semiconductor circuit of claim 8, wherein the gate oxide thickness of the pull-down transistor and a transfer gate transistor in the SRAM memory cell are selected using the following:

$$[\text{RATIO} \le \frac{Tox_{tg}}{Tox_{pd}} \frac{W_{pd}/L_{pd}}{W_{tg}/L_{tg}} \frac{Vcc - Vt_{tg}}{Vcc - Vt_{pd}}]$$

$$\text{RATIO} \le \frac{Tox_{tg}}{Tox_{pd}} x \frac{W_{pd}/L_{pd}}{W_{tg}/L_{tg}} x \frac{Vcc - Vtpd}{Vcc - Vt_{tg}}$$

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where RATIO is the desired ratio of the transfer gate transistors and the pull down transistors and the pull-down transistors, Tox_{tg} is the gate oxide thickness of the transfer gate transistor, Tox_{pd} is the gate oxide thickness of the pull-down transistor, W_{pd} is width of the pull-down transistor, L_{pd} is the length of the pull-down transistor, W_{tg} is the width of the transfer gate transistor, L_{tg} is the length of the transfer gate transistor, Vt_{tg} is the threshold voltage of the transfer gate transistor, and Vt_{pd} is the threshold voltage of the pull-down transistor.

Please add the following new claims:

13. A semiconductor circuit, comprising:

a first transistor including a first gate having a first width and including a first gate insulator having a first thickness; and

a second transistor including a second gate having a second width and including a second gate insulator having a second thickness, a product of the first width and the second thickness being greater than or equal to a product of the second width and the first thickness.

14. The semiconductor circuit of claim 13 wherein the first transistor comprises a pull-down transistor.

15. The semiconductor circuit of claim 13 wherein the second transistor comprises a transfer gate transistor.

16. The semiconductor circuit of claim 13 wherein the product of the first width and the second thickness is greater than the product of the second width and the first thickness.

17. A semiconductor circuit, comprising:

a first transistor including a first channel region having a first width and including a first gate insulator having a first thickness; and

a second transistor including a second channel region having a second width and including a second gate insulator having a second thickness, a product of the first width and the second thickness being greater than or equal to a product of the second width and the first thickness.

18. The semiconductor circuit of claim 17 wherein the first transistor comprises a pull-down transistor.

19. The semiconductor circuit of claim 17 wherein the second transistor comprises a transfer gate transistor.

20. The semiconductor circuit of claim 17 wherein the product of the first width and the second thickness is greater than the product of the second width and the first thickness.

21. A memory cell, comprising:

a pull-down transistor including a first gate having a first width and including a first gate insulator having a first thickness; and

a transfer gate transistor coupled to the pull-down transistor and including a second gate having a second width and including a second gate insulator having a second thickness, a product of the first width and the second thickness being greater than or equal to a product of the second width and the first thickness.

22. A memory cell, comprising:

a pull-down transistor including a first channel region having a first width and including a first gate insulator having a first thickness; and

a transfer gate transistor including a second channel region having a second width and including a second gate insulator having a second thickness, a product of the first width and the second thickness being greater than or equal to a product of the second width and the first thickness.

REMARKS

Claims 1 – 22 are pending in this broadening reissue application.

The Applicants have amended claims 1, 4, 6, and 9 and have added new circuit claims 13 – 20 and new memory-cell claims 21 – 22 to broaden the scope of protection to their invention. The Applicants have also amended the drawings and specification to correct typographical errors.

The Applicants have added no new matter to the reissue application.

In light of the foregoing, original claims 2 – 3, 5, 7 – 8, and 10 - 12 as issued, claims 1, 4, 6, and 9 as amended, and new claims 13 – 22 are in condition for full allowance, and that action is respectfully requested.

If the Examiner believes that a phone interview would be helpful, he/she is respectfully requested to contact the Applicant's attorney, Bryan Santarelli, at (425) 455-5575.

DATED this 20th day of October, 2000.

Respectfully submitted,

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Enclosures